MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

April 6, 2017

PERMIT TO INSTALL
704-91C

ISSUED TO
Kent Foundry Company

LOCATED AT
1413 Callaghan Street
Greenville, Michigan

IN THE COUNTY OF
Montcalm

STATE REGISTRATION NUMBER
B1737

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **March 8, 2017**	
DATE PERMIT TO INSTALL APPROVED: **April 6, 2017**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
		gr	Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Hg	Mercury
GACS	Gallons of Applied Coating Solids	hr	Hour
GC	General Condition	HP	Horsepower
GHGs	Greenhouse Gases	H_2S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NMOC	Non-methane Organic Compounds
MDEQ	Michigan Department of Environmental Quality	NO_x	Oxides of Nitrogen
		ng	Nanogram
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NA	Not Applicable	PM10	Particulate Matter equal to or less than 10 microns in diameter
NAAQS	National Ambient Air Quality Standards		
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonable Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO_2	Sulfur Dioxide
SCR	Selective Catalytic Reduction	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
		µm	Micrometer or Micron
VE	Visible Emissions	VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUPROCESSA	Two electric induction furnaces with fume rings. Liquid metal transfer (tapping), pouring and cooling process steps. Core making process including sand heating and mixing, the core oven, and the oil sand operation. Fume collection rings at the furnaces, exhaust collection hoods where feasible in all processes, or release to general building ventilation, and collected exhaust gas to a fabric filter collector (Baghouse No. 1)	2-19-2013	FGFACILITY
EUPROCESSB	Wheelabrator-Frye 96” table sand blaster, shakeout equipment, and handling equipment. Fabric filter collector (Baghouse No. 2)	2-19-2013	FGFACILITY
EUPROCESSC	Grinding and finishing processes including a stationary grinding station consisting of one pedestal grinder and one chop saw. Fabric filter collector (Baghouse No. 3)	2-19-2013	FGFACILITY
EUPROCESSD	Thermal sand reclaim system and associated sand storage and handling equipment including a Gudgeon Thermfire 8000 sand reclaimer, vibratory screener/magnetic separator assembly, 18 ft bucket elevator, Two (2) 200 ton sand silo, and One (1) 100 ton sand silo. Fabric filter collector (Baghouse No. 4)	4-6-2017	FGFACILITY
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

The following conditions apply to: EUPROCESSA

DESCRIPTION: Two electric induction furnaces with fume rings. Liquid metal transfer (tapping), pouring and cooling process steps. Core making process including sand heating and mixing, the core oven, and the oil sand operation.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: Fume collection rings at the furnaces, exhaust collection hoods where feasible in all processes, or release to general building ventilation, and collected exhaust gas to a fabric filter collector (Baghouse No. 1)

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb/1,000 lb exhaust gas, dry gas basis	Test Protocol*	EUPROCESSA	GC 13	R 336.1331
2. PM10	3.86 pph	Test Protocol*	EUPROCESSA	GC 13	40 CFR 52.21(c) and (d)
3. PM10	15.20 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSA	GC 13, SC VI.3	40 CFR 52.21(c) and (d)
4. VOC[1]	17.7 pph	Test Protocol*	EUPROCESSA	GC 13	R 336.1702(a) R 336.1225
5. VOC[1]	69.8 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSA	GC 13, SC VI.3	R 336.1702(a) R 336.1225
6. VE	5% opacity	6-minute average	EUPROCESSA	GC 13	R 336.1301(c) R 336.1331

[1] The VOC emission rate is 2.53 lb VOC per ton of sand using the OCMA Weight Loss Method developed by the Ohio Cast Metals Association.

* Test Protocol shall specify averaging time

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Total metal charge rate	10,000 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSA	SC VI.2	R 336.1205(1), R 336.1225
2. Sand for molding operations	7.0 tons per hour	Calendar day average	EUPROCESSA	SC VI.2	R 336.1205(1)
3. Sand for molding operations	55,200 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSA	SC VI.2	R 336.1205(1) 40 CFR 52.21(c) and (d)
4. Binder Resin, Part A	75 pounds per hour	Calendar day average	EUPROCESSA	SC VI.2	R 336.1205(1), R 336.1225
5. Binder Resin, Part A	300 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSA	SC VI.2	R 336.1205(1), R 336.1225
6. Binder Resin, Part B	50 pounds per hour	calendar day average	EUPROCESSA	SC VI.2	R 336.1205(1), R 336.1225
7. Binder Resin, Part B	200 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSA	SC VI.2	R 336.1205(1), R 336.1225
8. Binder Catalyst	2.3 pounds per hour	calendar day average	EUPROCESSA	SC VI.2	R 336.1205(1), R 336.1225
9. Binder Catalyst	8.7 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSA	SC VI.2	R 336.1205(1), R 336.1225

Basis for the hourly emissions is 7,884 operating hours per year

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUPROCESSA unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the fume collection rings at the furnaces, exhaust collection hoods, and fabric filter collector (Baghouse No. 1) is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUPROCESSA unless the fume collection rings at the furnaces, exhaust collection hoods, and fabric filter collector (Baghouse No. 1) are installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**

2. The permittee shall not operate EUPROCESSA unless the bag leak detector system for the fabric filter collector (Baghouse No. 1) is installed, maintained, and operated in a satisfactory manner. **(R 336.1331, 40 CFR 52.21 (c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702)**

2. The permittee shall monitor and record, in a satisfactory manner, the furnace charge rate, sand usage rate, binder compound usage rates (resin part A, resin part B, and catalyst), release agents usage rate, and mold coating material usage rate for EUPROCESSA in pounds per hour or tons per hour on a calendar day hourly average basis. **(R 336.1205(1), R 336.1225, R 336.1331, 40 CFR 52.21(c) and (d))**

3. The permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period PM10 and VOC emission calculation records for EUPROCESSA. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1702, 40 CFR 52.21(c) and (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV01	35	60	R 336.1225, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply to: EUPROCESSB

DESCRIPTION: Wheelabrator-Frye 96" table sand blaster, shakeout equipment, and handling equipment. Fabric filter collector (Baghouse No. 2)

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: Fabric filter collector (Baghouse No. 2)

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb/1,000 lb exhaust gas, dry gas basis	Test Protocol*	EUPROCESSB	GC 13	R 336.1331
2. PM10	0.19 pph	Test Protocol*	EUPROCESSB	GC 13	R 336.1205(1) 40 CFR 52.21(c) and (d)
3. PM10	0.75 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSB	GC 13 SC VI.2	R 336.1205(1) 40 CFR 52.21(c) and (d)
4. PM2.5	0.40 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSB	GC 13 SC VI.2	R 336.1205(1) 40 CFR 52.21(c) and (d)
5. VE	5% opacity	6-minute average	EUPROCESSB	GC 13	R 336.1301(c) R 336.1331

* Test Protocol shall specify averaging time

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUPROCESSB unless the mechanical collector and fabric filter collector (Baghouse No. 2) are installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**

2. The permittee shall not operate EUPROCESSB unless the bag leak detector system for the fabric filter collector (Baghouse No. 2) is installed, maintained, and operated in a satisfactory manner. **(R 336.1331, 40 CFR 52.21 (c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702)**

2. The permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period PM10 and PM2.5 emission calculation records for EUPROCESSB. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1702, 40 CFR 52.21(c) and (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV02	35	60	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply to: EUPROCESSC

DESCRIPTION: Grinding and finishing processes including a stationary grinding station consisting of one pedestal grinder and one chop saw.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: Fabric filter collector (Baghouse No. 3)

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb/1,000 lb exhaust gas, dry gas basis	Test Protocol*	EUPROCESSC	GC 13	R 336.1331
2. PM	0.28 pph	Test Protocol*	EUPROCESSC	GC 13	R 336.1331
3. PM	1.21 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSC	GC 13 SC VI.2	R 336.1331
4. VE	5% opacity	6-minute average	EUPROCESSC	GC 13	R 336.1301(c) R 336.1331

* Test Protocol shall specify averaging time

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUPROCESSC unless the mechanical collector and fabric filter collector (Baghouse No. 3) are installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**

2. The permittee shall not operate EUPROCESSC unless the bag leak detector system for the fabric filter collector (Baghouse No. 3) is installed, maintained, and operated in a satisfactory manner. **(R 336.1331, 40 CFR 52.21 (c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a), R 336.1205(3), R 336.1331)**

2. The permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period PM emission calculation records for EUPROCESSC. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1331)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV03	24	50	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply to: EUPROCESSD

DESCRIPTION: Thermal sand reclaim system and associated sand storage and handling equipment including a Gudgeon Thermfire 8000 sand reclaimer, vibratory screener/magnetic separator assembly, 18 ft bucket elevator, Two (2) 200 ton sand silo, and One (1) 100 ton sand silo.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: Fabric filter collector (Baghouse No. 4)

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb/1,000 lb exhaust gas, dry gas basis	Test Protocol*	EUPROCESSD	GC 13	R 336.1331
2. PM10	1.40 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSD	GC 13, SC VI.2	40 CFR 52.21(c) and (d)
3. PM2.5	0.40 tpy	12 month rolling time period as determined at the end of each calendar month	EUPROCESSD	GC 13, SC VI.2	R 336.1205(1) 40 CFR 52.21(c) and (d)
4. VE	5% opacity	6-minute average	EUPROCESSD	GC 13	R 336.1301(c) R 336.1331

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUPROCESSD unless a minimum temperature of 1240°F is maintained for the exhaust gases from the hood of the Thermfire system. **(R 336.1205, R 336.1225, R 336.1702, R 336.1901, R 336.1910)**

2. The permittee shall not operate EUPROCESSD unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the thermal reclamation baghouse, has been submitted within 60 days of permit issuance, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
   c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUPROCESSD unless the mechanical collector and fabric filter collector (Baghouse No. 4) are installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**

2. The permittee shall not operate EUPROCESSD unless the bag leak detector system for the fabric filter collector (Baghouse No. 4) is installed, maintained, and operated in a satisfactory manner. **(R 336.1331, 40 CFR 52.21 (c) & (d))**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device to monitor and record the temperature of the exhaust gases from the hood of the Thermfire system in EUPROCESSD on a continuous basis. Temperature shall be recorded at a minimum of once every 15 minutes. **(R 336.1205, R 336.1225, R 336.1702)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702)**

2. The permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period PM10 and PM2.5 emission calculation records for EUPROCESSD. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1702, 40 CFR 52.21(c) and (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV04 (natural gas exhaust)	42	50	R 336.1225, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENTS

NA

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	EUPROCESSA EUPROCESSB EUPROCESSC EUPROCESSD

The following conditions apply to: FGFACILITY

DESCRIPTION: All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

Emission Units: EUPROCESSA, EUPROCESSB, EUPROCESSC, EUPROCESSD

POLLUTION CONTROL EQUIPMENT: Fume collection rings at the furnaces, exhaust collection hoods where feasible on all processes, or release to general building ventilation, and collected exhaust gas to a fabric filter collector (Baghouse No. 1), mechanical collector on the sand blaster and fabric filter collector (Baghouse No. 2) on the reclaimer module, fabric filter collector (Baghouse No. 3)

I. EMISSION LIMITS

Pollutant	Limit	Time Period	Equipment	Testing / Monitoring Method	Applicable Requirements
1. Each Individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(3)
2. Aggregate HAPs	Less than 22 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(3)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a), R 336.1205(3), R 336.1331)**

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material that may contain HAP (metal charged to the furnace, sand, binder compounds—specifically resin part A, resin part B, and catalyst, release agents, and mold coating material) including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224)**

3. The permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period calculation records for each individual HAP and aggregate HAPs for FGFACILITY. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1331)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

NA

IX. OTHER REQUIREMENTS

NA

The following conditions apply to: FGMACTZZZZZ

DESCRIPTION: The affected source is a new or existing iron and steel foundry, that is (or is part of) an area source of hazardous air pollutant (HAP) emissions. The affected source is an existing small foundry as defined by 40 CFR Part 63 Subpart ZZZZZ.

Emission Units: EUPROCESSA, EUPROCESSB, EUPROCESSC, EUPROCESSD

POLLUTION CONTROL EQUIPMENT: As listed for each individual emission unit

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

1. If applicable, the permittee shall not utilize a binder chemical formulation that uses methanol as a specific ingredient of the catalyst formulation for a warm box mold or core making line. This requirement does not apply to the resin portion of the binder system. **(40 CFR 63.10886)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall implement and maintain an approved plan to address the pollution prevention management practices for metallic scrap and mercury switches by the applicable compliance date specified in 40 CFR 63.10881. The plan shall include the following:
   a) Metallic scrap management program. **(40 CFR 63.10885(a))**
   b) Mercury requirements. **(40 CFR 63.10885(b))**

   The permittee shall revise the plan within 30 days after a change occurs. **(40 CFR 63.10885)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep records on a monthly basis as required by 40 CFR 63.10899(b)(1) through (13) as applicable. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(40 CFR 63.10899(b))**

VII. REPORTING

1. The permittee shall submit semiannual compliance reports to the Administrator according to the requirements in §63.10(e). The reports must include, at a minimum, the following information as applicable:
   a) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;
   b) Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and
   c) Summary information on any deviation from the pollution prevention management practices in §63.10885 and 63.10886 and the operation and maintenance requirements §63.10896 and the corrective action taken. **(40 CFR 10899 (c))**

2. If applicable, the permittee shall submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that the facility has conducted periodic inspections or taken other means of corroboration as required under §63.10885(b)(1)(ii)(C). The permittee shall identify which option in §63.10885(b) applies to each scrap provider, contract, or shipment. **(63.10899(b)(2)(i))**

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZZ for Iron and Steel Foundries by the initial compliance date. **(40 CFR Part 63 Subparts A and ZZZZZ)**